

08 - PLUMBING  
INDEX OF DRAWINGS

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THE DESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA. APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE DESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.

TRANSPORTATION PRINCIPAL ENGINEER

## PIPING

## FITTINGS

## VALVES

## PIPING SPECIALTIES

## PLUMBING FIXTURES

## MISCELLANEOUS

JWW

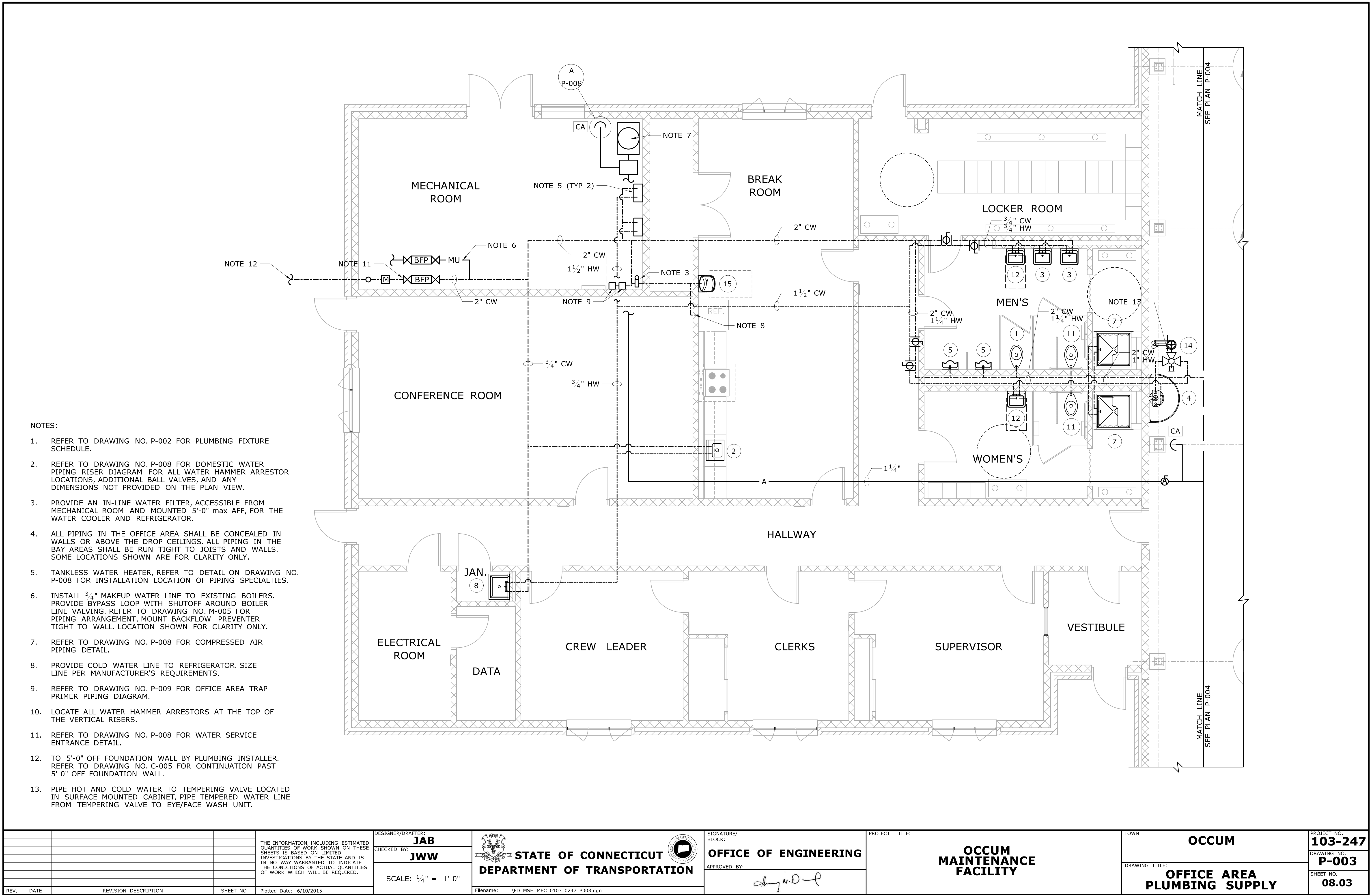
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Filename: ... \FD-MSH-MEC-0103-0247-P002.dgn

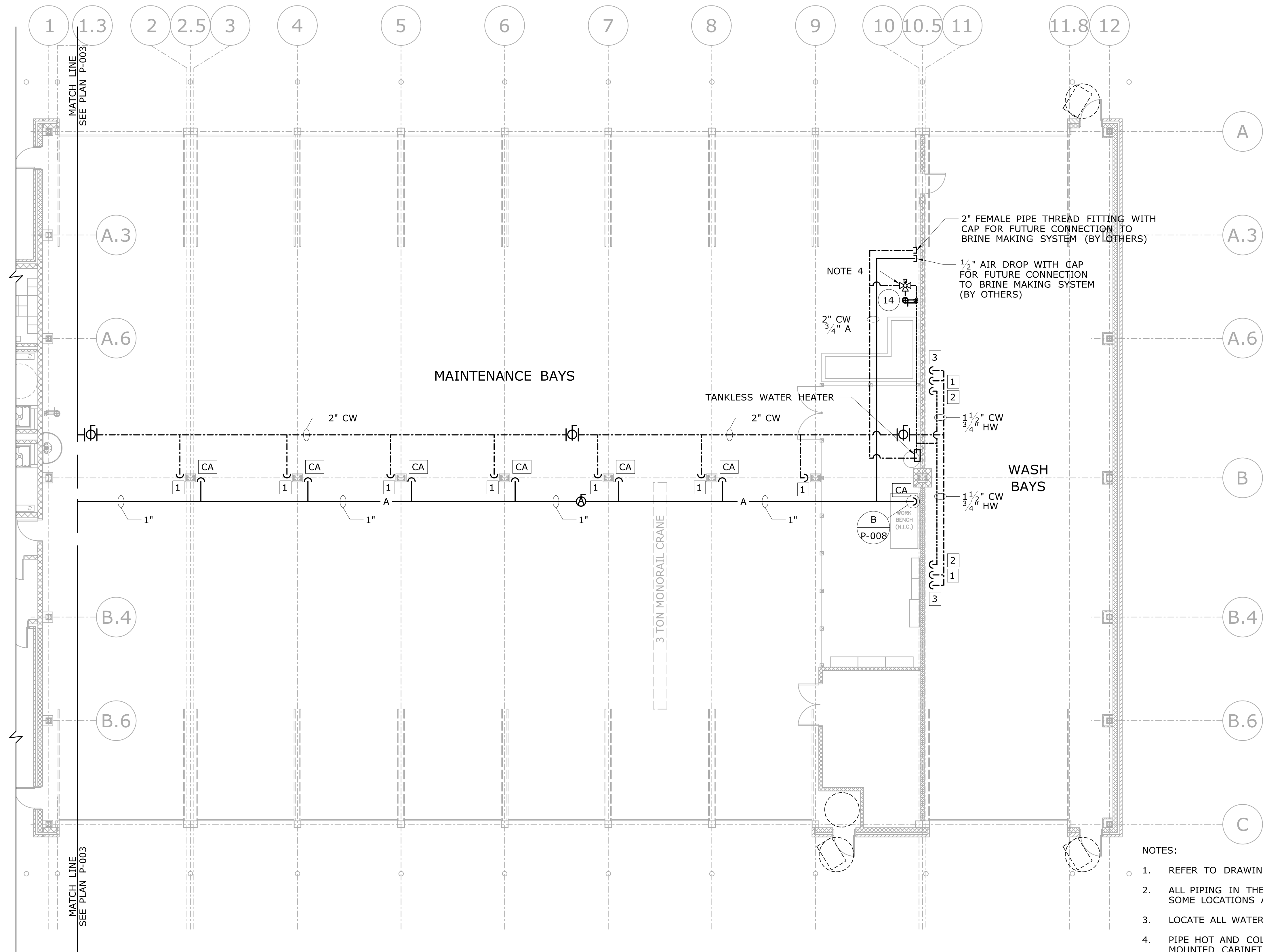
## GENERAL NOTES

1. THE INSTALLER SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. FAILURE TO NOTIFY THE ENGINEER WILL NOT RELIEVE THE INSTALLER OF RESPONSIBILITY. THE INSTALLER SHALL CORRECT ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ENGINEER WITHOUT ADDITIONAL COST TO THE OWNER.
2. PLUMBING INSTALLER SHALL COORDINATE WITH ALL NECESSARY INSTALLERS TO PREVENT INSTALLATION CONFLICTS.
3. OPENINGS FOR PENETRATIONS IN SLABS AND WALLS SHALL BE DRILLED TO ACCOMMODATE PIPE SLEEVES FOR THE PASSAGE OF PIPES. HOLE TOLERANCES SHALL MEET REQUIREMENTS OF SLEEVE MANUFACTURER. EXACT LOCATIONS SHALL BE FIELD COORDINATED TO CLEAR BEAMS AND REINFORCEMENT BARS.
4. WHERE PIPES PASS THROUGH FINISHED SURFACES OF FLOORS, CEILINGS, ROOFS, AND WALLS, PROVIDE PIPE SLEEVES AND ESCUTCHEON PLATE/FRAMES.
5. WHERE PIPES PASS THROUGH EXPOSED SURFACES, PROVIDE PIPE SLEEVES, SEAL AROUND OPENINGS, AND FINISH THE OPENINGS. FIRE SEAL WHERE PIPES PASS THROUGH FIRE RATED CONSTRUCTION. FIRE SEAL SHALL MATCH THE FIRE RATING OF THE ADJACENT CONSTRUCTION.
6. PROVIDE SHUTOFF VALVES AND UNIONS/FLANGES AT BASE OF ALL RISERS, MAINS, BRANCHES, AND CONNECTIONS TO ISOLATE FOR MAINTENANCE PURPOSES.
7. PROVIDE ACCESS DOORS FOR SERVICE ACCESS TO VALVES, AIR VENTS, AND OTHER ACCESSORIES IN CONCEALED SPACES, FOR MAINTENANCE AND INSPECTION. PROVIDE FIRE RATED DEVICES MATCHING THE ADJACENT CONSTRUCTION IN FIRE RATED CONSTRUCTION.
8. PROVIDE DRAIN VALVES WITH HOSE THREADS AT ALL LOW POINTS OF PIPING AND AIR VENTS AT ALL HIGH POINTS OF PIPING.
9. UNLESS OTHERWISE INDICATED, ALL BRANCH PIPING SHALL BE OFF THE BOTTOM OF THE MAIN PIPING RUN.
10. REFER TO SUPPORTING DOCUMENTS SUBSET FOR PAY LIMITS FOR MAJOR LUMP SUM ITEM (MLSI). EXCAVATION FOR PLUMBING SYSTEMS WITHIN THESE LIMITS IS INCLUDED FOR PAYMENT IN THE MLSI. THERE WILL BE NO SEPARATE PAYMENT FOR EXCAVATION FOR THESE SYSTEMS.
11. METHODS OF ATTACHMENT OF SEISMIC RESTRAINT CABLES SHALL COMPLY WITH THE FOLLOWING:
  - a. TO EQUIPMENT: BOLT ANGLE CLIPS TO SUSPENDED EQUIPMENT ADJACENT TO THE HANGER RODS. ORIENT THE FOUR SEISMIC CABLES 90 DEG TO EACH OTHER. ATTACH SEISMIC CABLES TO ANGLE CLIPS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
  - b. TO STRUCTURE: ATTACH SEISMIC CABLE TO TOP CHORD OF ROOF JOISTS WITH APPROPRIATE FASTENING DEVICES. WELDING, BURNING, OR DRILLING OF THE ROOF JOISTS SHALL NOT BE PERMITTED. THE SEISMIC CABLE SHALL BE DRAWN TAUT BUT SHALL NOT DISPLACE THE UNITS. ATTACHMENT TO BOTTOM CHORD OF ROOF JOISTS SHALL NOT BE PERMITTED. PROVIDE DESIGNER WITH METHOD OF ATTACHMENT TO ROOF JOISTS FOR APPROVAL.



- NOTES:
- REFER TO DRAWING NO. P-002 FOR PLUMBING FIXTURE SCHEDULE.
  - REFER TO DRAWING NO. P-008 FOR DOMESTIC WATER PIPING RISER DIAGRAM FOR ALL WATER HAMMER ARRESTOR LOCATIONS, ADDITIONAL BALL VALVES, AND ANY DIMENSIONS NOT PROVIDED ON THE PLAN VIEW.
  - PROVIDE AN IN-LINE WATER FILTER, ACCESSIBLE FROM MECHANICAL ROOM AND MOUNTED 5'-0" max AFF, FOR THE WATER COOLER AND REFRIGERATOR.
  - ALL PIPING IN THE OFFICE AREA SHALL BE CONCEALED IN WALLS OR ABOVE THE DROP CEILINGS. ALL PIPING IN THE BAY AREAS SHALL BE RUN TIGHT TO JOISTS AND WALLS. SOME LOCATIONS SHOWN ARE FOR CLARITY ONLY.
  - TANKLESS WATER HEATER, REFER TO DETAIL ON DRAWING NO. P-008 FOR INSTALLATION LOCATION OF PIPING SPECIALTIES.
  - INSTALL  $\frac{3}{4}$ " MAKEUP WATER LINE TO EXISTING BOILERS. PROVIDE BYPASS LOOP WITH SHUTOFF AROUND BOILER LINE VALVING. REFER TO DRAWING NO. M-005 FOR PIPING ARRANGEMENT. MOUNT BACKFLOW PREVENTER TIGHT TO WALL. LOCATION SHOWN FOR CLARITY ONLY.
  - REFER TO DRAWING NO. P-008 FOR COMPRESSED AIR PIPING DETAIL.
  - PROVIDE COLD WATER LINE TO REFRIGERATOR. SIZE LINE PER MANUFACTURER'S REQUIREMENTS.
  - REFER TO DRAWING NO. P-009 FOR OFFICE AREA TRAP PRIMER PIPING DIAGRAM.
  - LOCATE ALL WATER HAMMER ARRESTORS AT THE TOP OF THE VERTICAL RISERS.
  - REFER TO DRAWING NO. P-008 FOR WATER SERVICE ENTRANCE DETAIL.
  - TO 5'-0" OFF FOUNDATION WALL BY PLUMBING INSTALLER. REFER TO DRAWING NO. C-005 FOR CONTINUATION PAST 5'-0" OFF FOUNDATION WALL.
  - PIPE HOT AND COLD WATER TO TEMPERING VALVE LOCATED IN SURFACE MOUNTED CABINET. PIPE TEMPERED WATER LINE FROM TEMPERING VALVE TO EYE/FACE WASH UNIT.

				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>JAB</b> CHECKED BY: <b>JWW</b>  SCALE: 1/4" = 1'-0"	 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>  Filename: ...\\FD_MSH_MEC.0103_0247_P003.dgn	SIGNATURE/ BLOCK: <b>OFFICE OF ENGINEERING</b>  APPROVED BY: 	PROJECT TITLE:  <b>OCCUM MAINTENANCE FACILITY</b>	TOWN: <b>OCCUM</b>	PROJECT NO. <b>103-247</b> DRAWING NO. <b>P-003</b> SHEET NO. <b>08.03</b>
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 6/10/2015	DRAWING TITLE: <b>OFFICE AREA PLUMBING SUPPLY</b>						



- NOTES:
- 1. REFER TO DRAWING NO. P-002 FOR PLUMBING FIXTURE SCHEDULE.
  - 2. ALL PIPING IN THE BAY AREAS SHALL BE RUN TIGHT TO JOISTS AND WALLS. SOME LOCATIONS ARE SHOWN FOR CLARITY ONLY.
  - 3. LOCATE ALL WATER HAMMER ARRESTORS AT THE TOP OF THE VERTICAL RISERS.
  - 4. PIPE HOT AND COLD WATER TO TEMPERING VALVE LOCATED IN SURFACE MOUNTED CABINET. PIPE TEMPERED WATER LINE FROM TEMPERING VALVE TO EYE/FACE WASH UNIT.
  - 5. COORDINATE PIPING LOCATIONS WITH CRANE.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

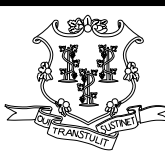
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.


Plotted Date: 6/10/2015

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**JAB**

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**JWW**

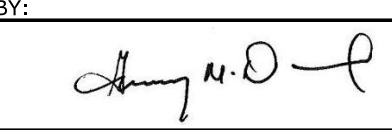
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**STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**



Filename: ...\\FD\_MSH\_MEC\_0103\_0247\_P004.dgn

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BLOCK:  
**OFFICE OF ENGINEERING**

APPROVED BY:  


PROJECT TITLE:  
**OCCUM  
MAINTENANCE  
FACILITY**

TOWN:  
**OCCUM**

DRAWING TITLE:  
**BAY AREA  
PLUMBING SUPPLY**

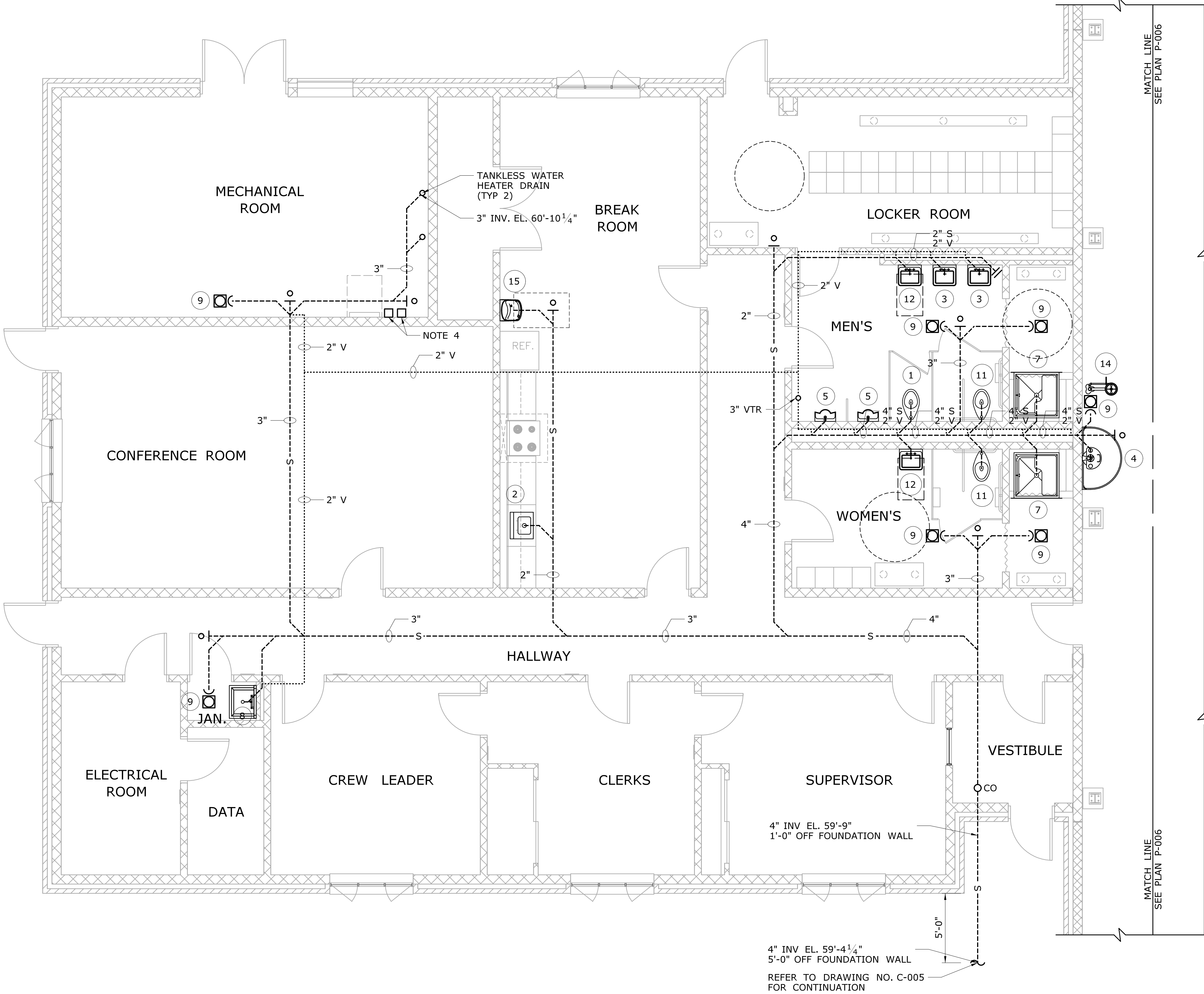
PROJECT NO.  
**103-247**

DRAWING NO.  
**P-004**

SHEET NO.  
**08.04**


NOTES:


1. REFER TO DRAWING NO. P-002 FOR PLUMBING FIXTURE SCHEDULE.
2. REFER TO DRAWING NO. P-009 FOR SANITARY PIPING RISER DIAGRAM FOR ANY DIMENSIONS NOT PROVIDED ON THE PLAN VIEW.
3. ALL PIPING IN THE OFFICE AREA SHALL BE CONCEALED IN WALLS OR ABOVE THE DROP CEILINGS. SOME LOCATIONS SHOWN ARE FOR CLARITY ONLY.
4. REFER TO DRAWING NO. P-009 FOR OFFICE AREA TRAP PRIMER PIPING DIAGRAM.



REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 6/10/2015

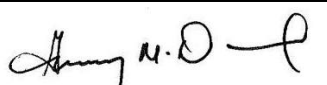
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**STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**



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BLOCK:  
**OFFICE OF ENGINEERING**

APPROVED BY:  


PROJECT TITLE:  
**OCCUM  
MAINTENANCE  
FACILITY**

TOWN:  
**OCCUM**

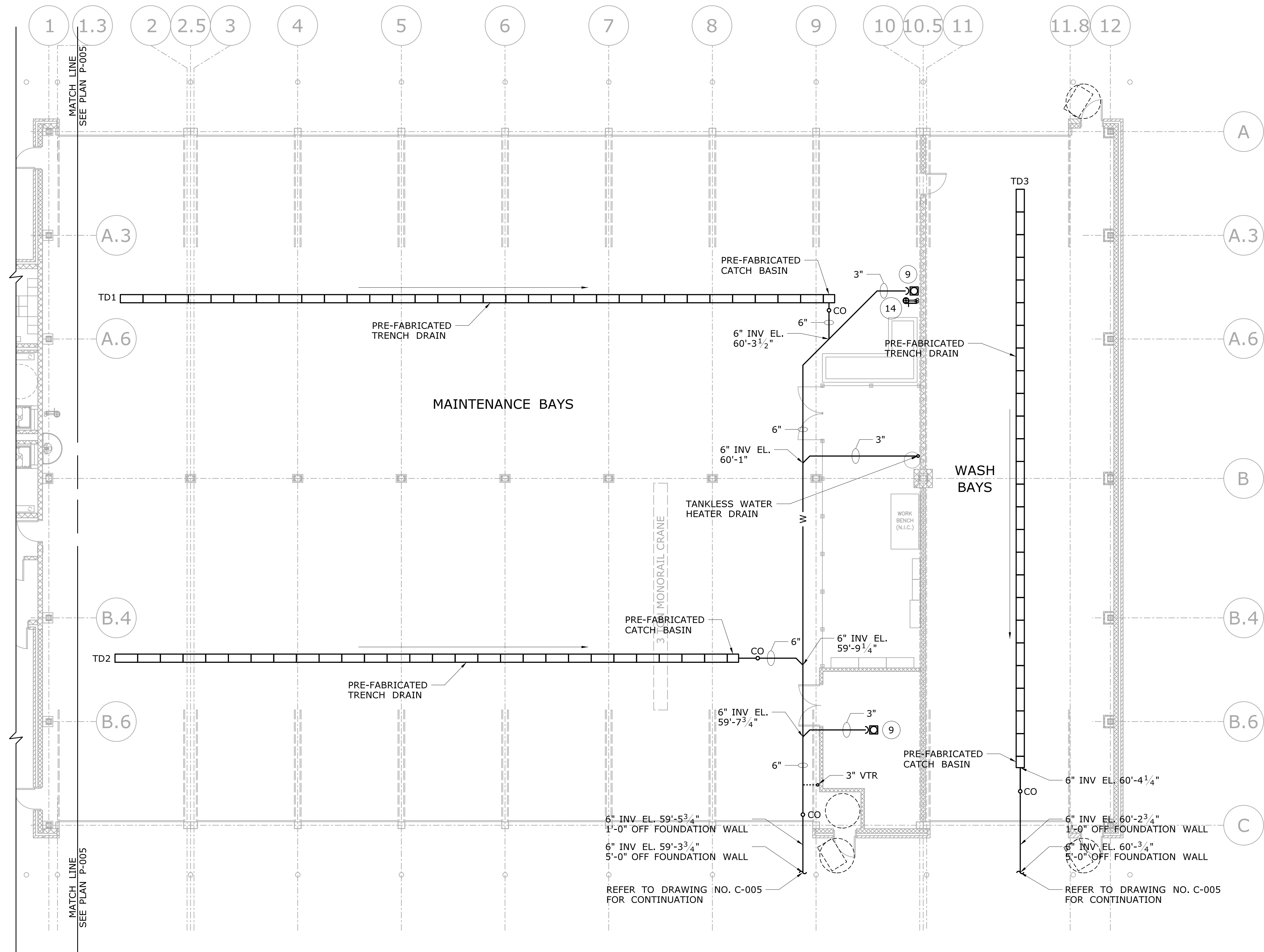
DRAWING TITLE:  
**OFFICE AREA  
PLUMBING DRAINAGE**

PROJECT NO.  
**103-247**



DRAWING NO.  
**P-005**

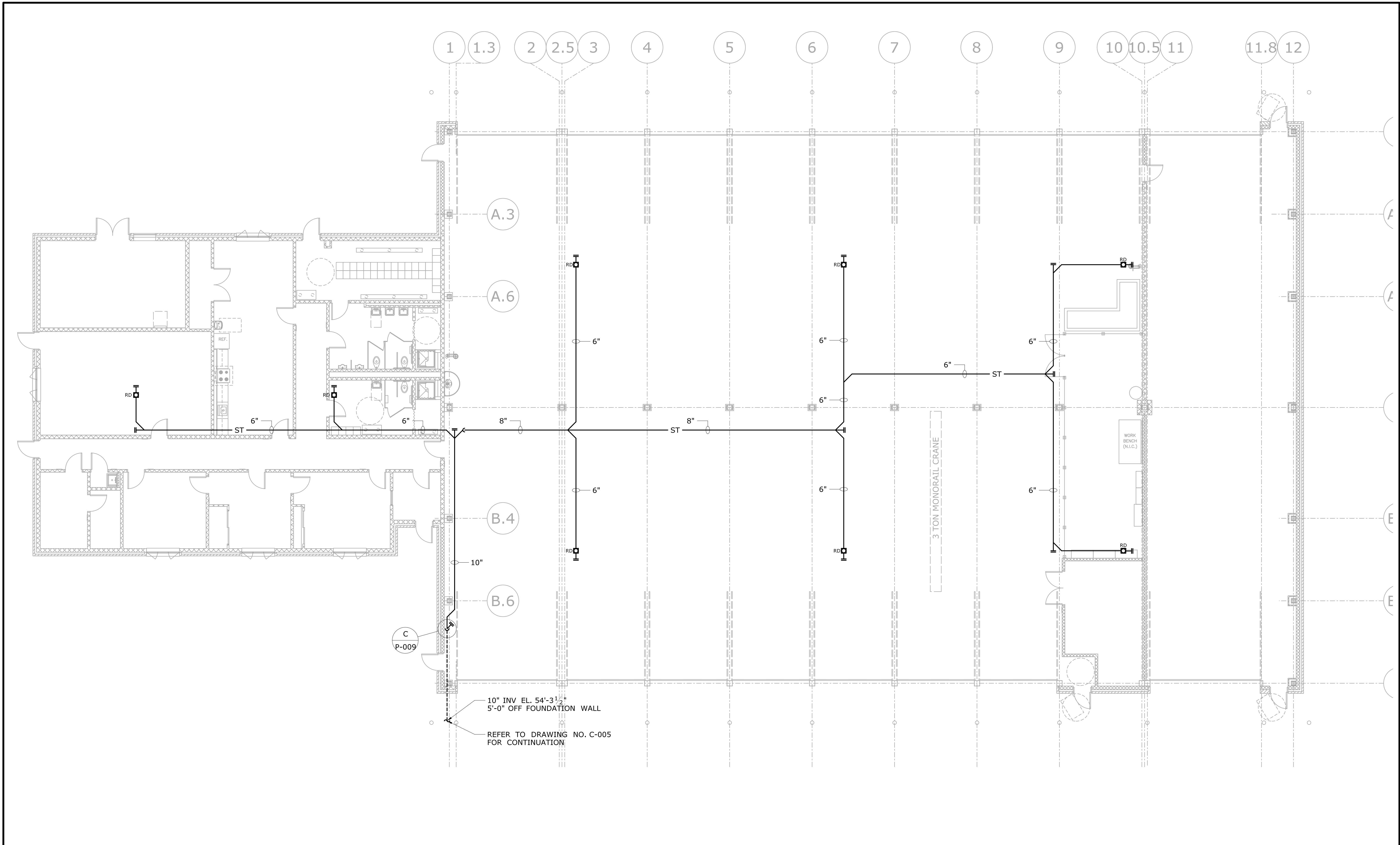
SHEET NO.  
**08.05**





- NOTES:
- REFER TO DRAWING NO. P-002 FOR PLUMBING FIXTURE SCHEDULE.

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				CHECKED BY: <b>JWW</b>							APPROVED BY: 	DRAWING TITLE: <b>BAY AREA PLUMBING DRAINAGE</b>	DRAWING NO. <b>P-006</b>
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REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 6/10/2015		Filename: ...\\FD.MSH.MEC.0103.0247.P006.dgn							
				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.									



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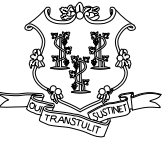
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 6/10/2015

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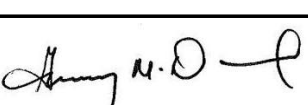
CHECKED BY:  
**JWW**

SCALE: 1/8" = 1'-0"

 **STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**

Filename: ...\\FD\_MSH\_MEC\_0103\_0247\_P007.dgn

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BLOCK:  
**OFFICE OF ENGINEERING**

APPROVED BY:  


PROJECT TITLE:  
**OCCUM  
MAINTENANCE  
FACILITY**

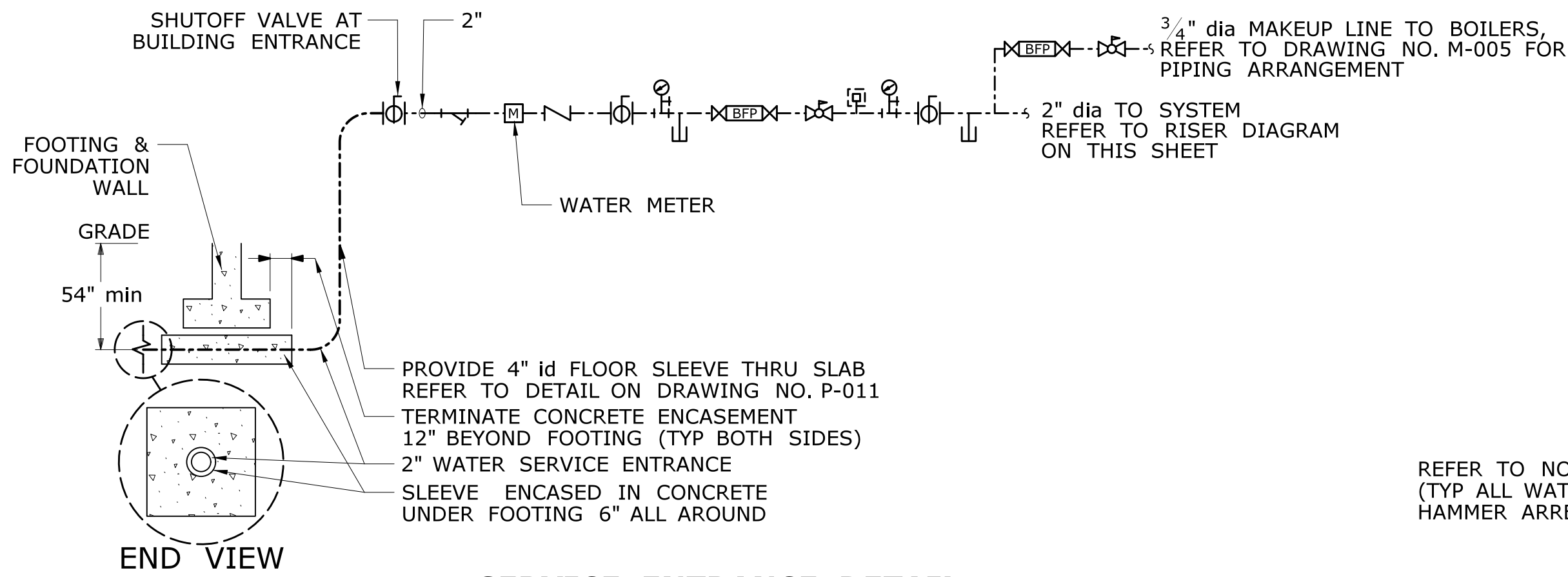
TOWN:  
**OCCUM**

DRAWING TITLE:  
**ROOF DRAINAGE**

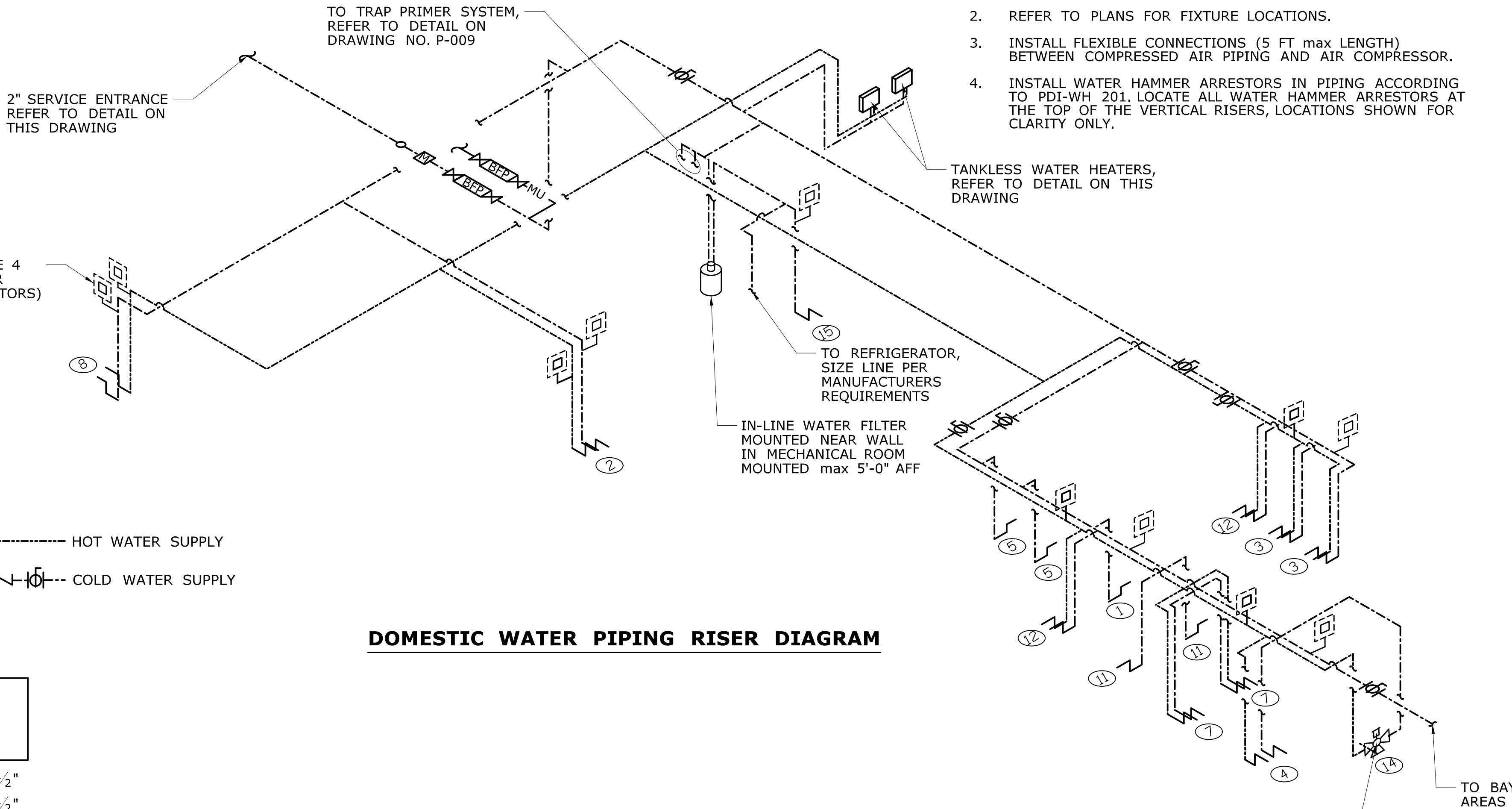
PROJECT NO.  
**103-247**

DRAWING NO.  
**P-007**

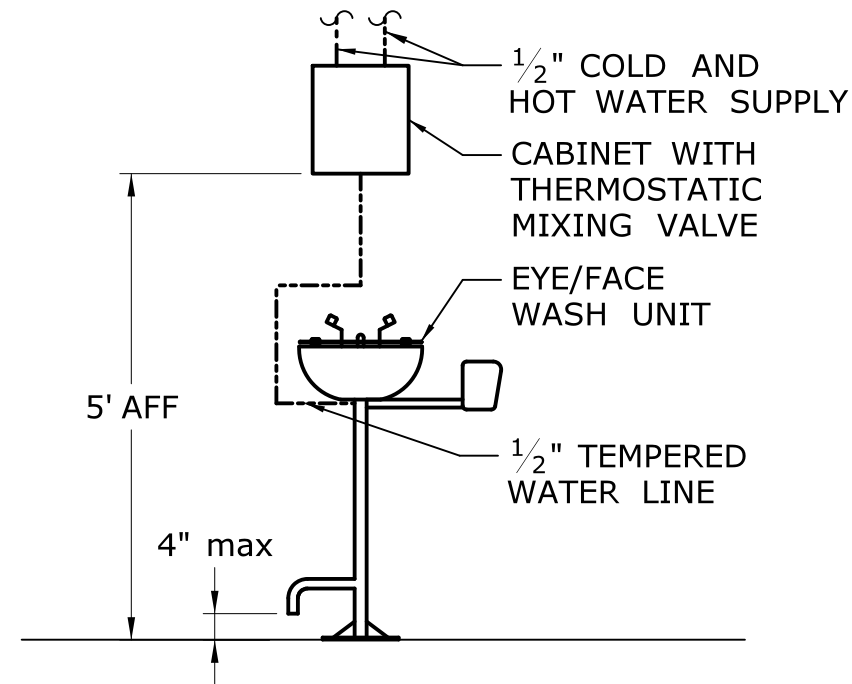
SHEET NO.  
**08.07**



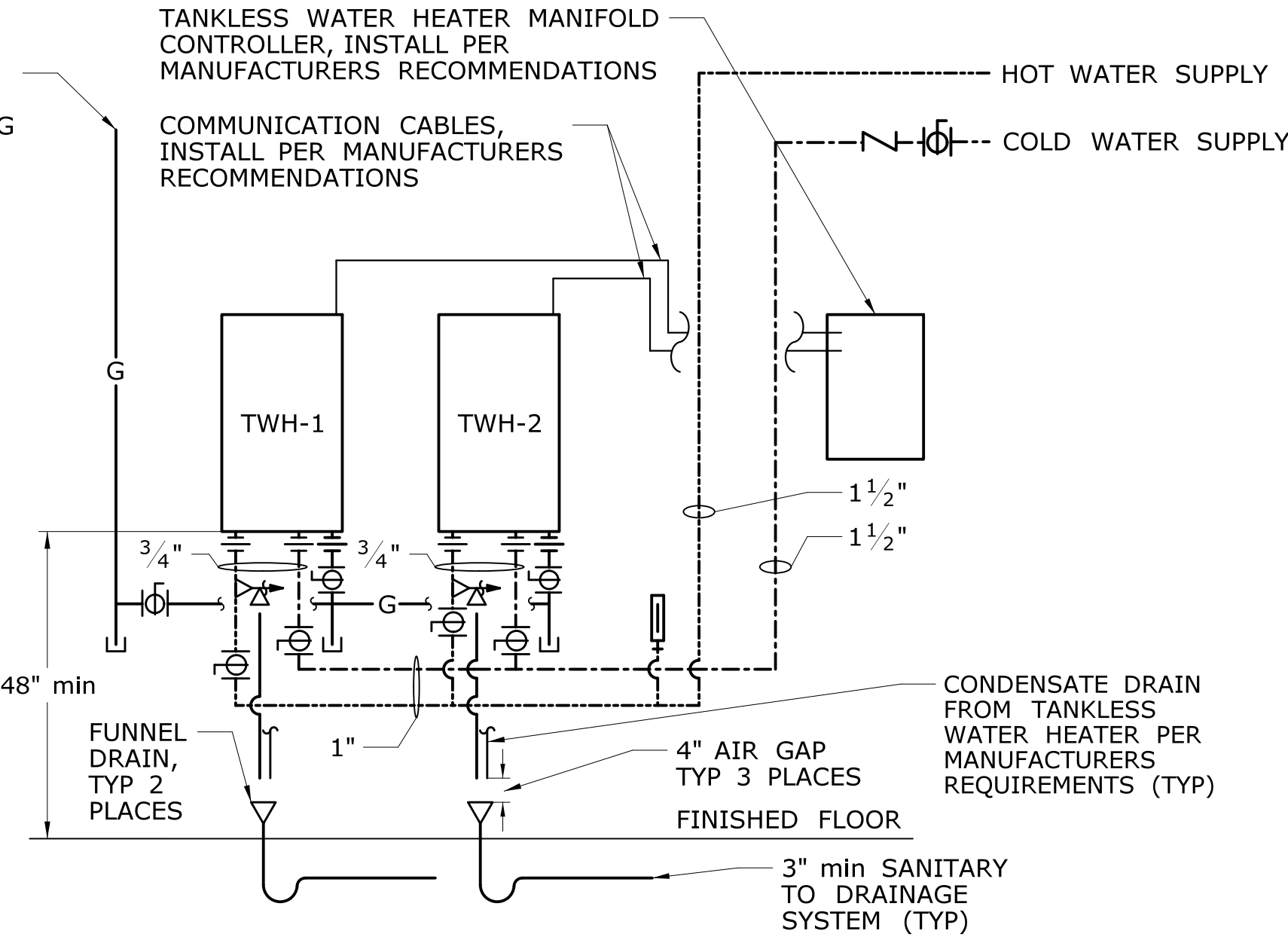
SERVICE ENTRANCE DETAIL



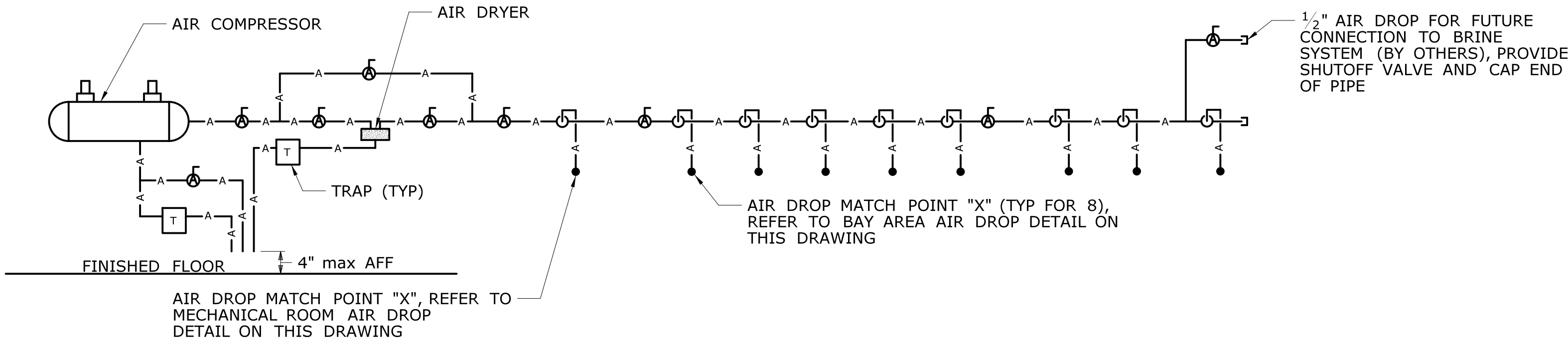
DOMESTIC WATER PIPING RISER DIAGRAM



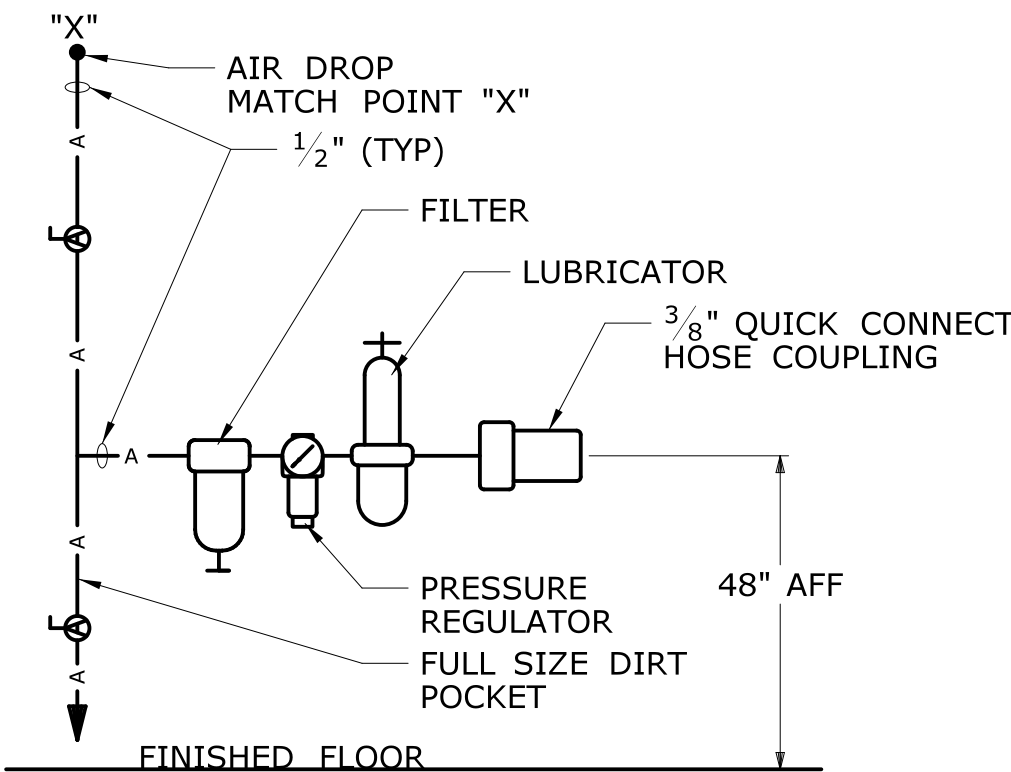
EYE/FACE WASH DETAIL WITH MIXING VALVE



TANKLESS WATER HEATER DETAIL

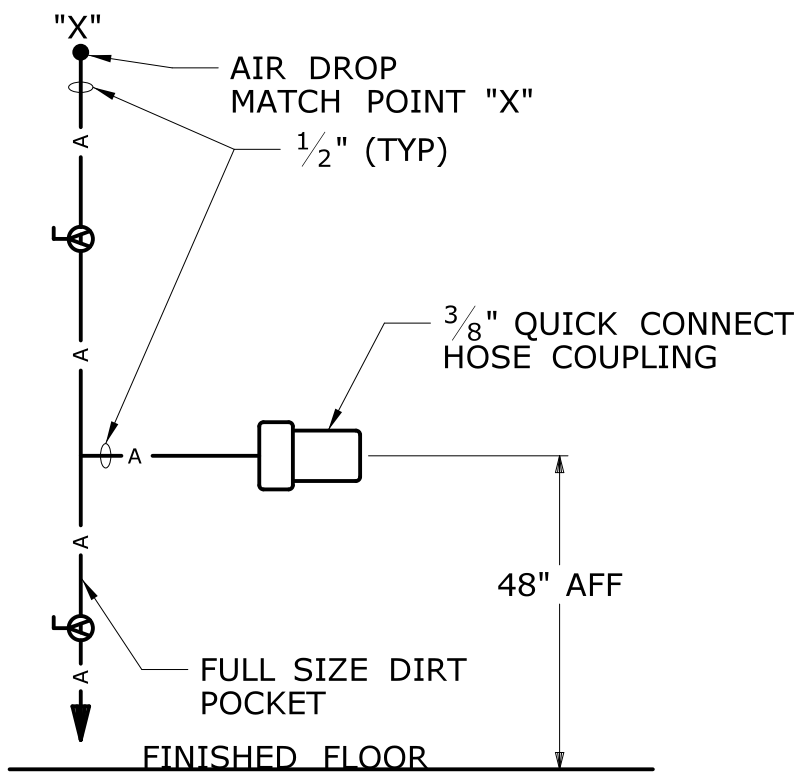


COMPRESSED AIR PIPING DETAIL



TYPICAL AIR DROP DETAIL IN BAY AREAS

B  
P-004



AIR DROP DETAIL IN MECHANICAL ROOM

A  
P-003

- NOTES:
1. REFER TO DRAWING NO. P-002 FOR PLUMBING FIXTURE SCHEDULE.
  2. REFER TO PLANS FOR FIXTURE LOCATIONS.
  3. INSTALL FLEXIBLE CONNECTIONS (5 FT max LENGTH) BETWEEN COMPRESSED AIR PIPING AND AIR COMPRESSOR.
  4. INSTALL WATER HAMMER ARRESTORS IN PIPING ACCORDING TO PDT-WH 201. LOCATE ALL WATER HAMMER ARRESTORS AT THE TOP OF THE VERTICAL RISERS, LOCATIONS SHOWN FOR CLARITY ONLY.

TANKLESS WATER HEATERS, REFER TO DETAIL ON THIS DRAWING

TO REFRIGERATOR, SIZE LINE PER MANUFACTURERS REQUIREMENTS

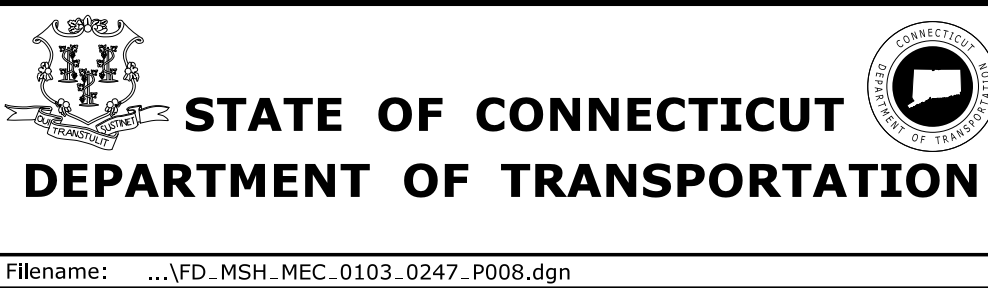
IN-LINE WATER FILTER MOUNTED NEAR WALL IN MECHANICAL ROOM MOUNTED max 5'-0" AFF

MIXING VALVE IN SURFACE MOUNTED CABINET FOR EYE/FACE WASH IN BAY AREA, REFER TO DETAIL ON THIS DRAWING

TO BAY AREAS

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 6/10/2015

DESIGNER/DRAFTER:  
**JAB**  
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**JWW**  
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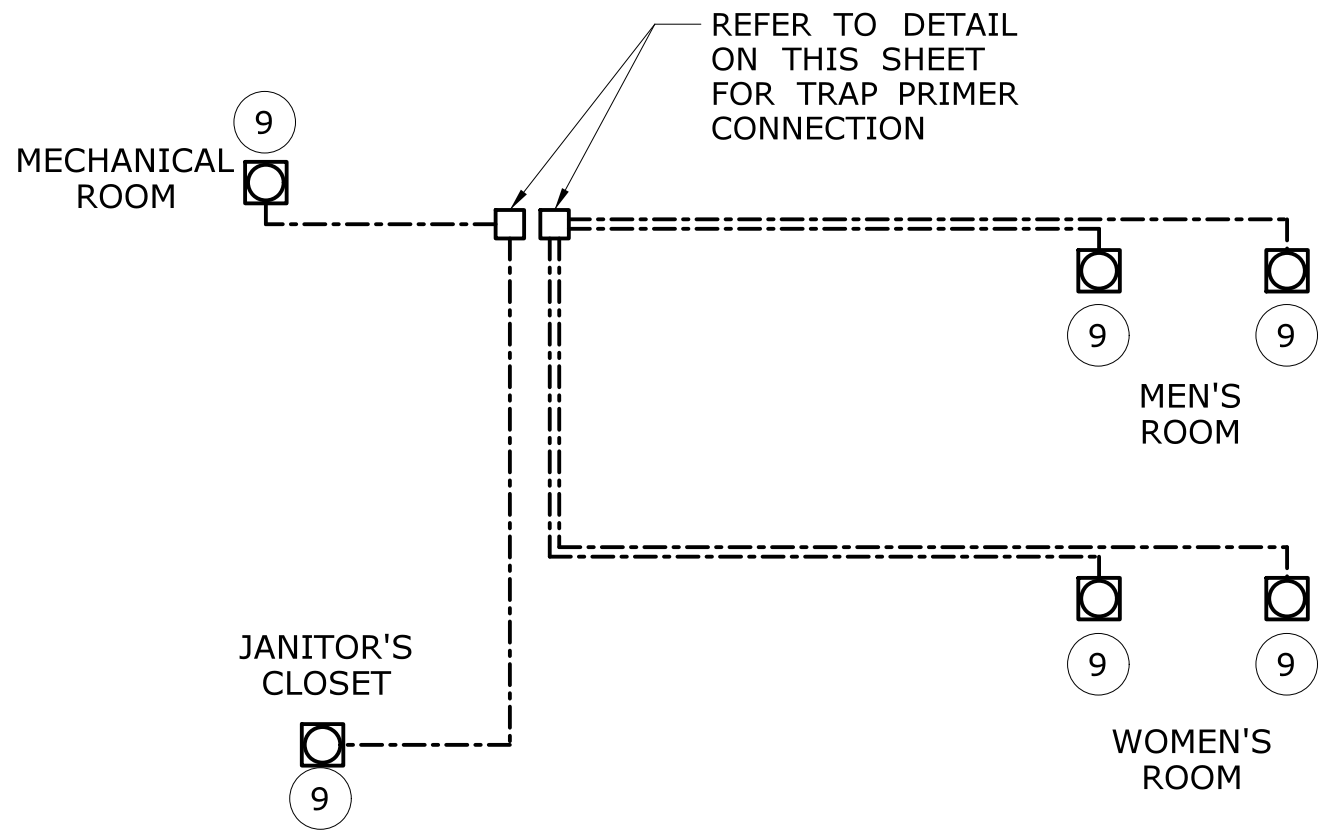


SIGNATURE/BLOCK:  
**OFFICE OF ENGINEERING**  
APPROVED BY:  
*[Signature]*

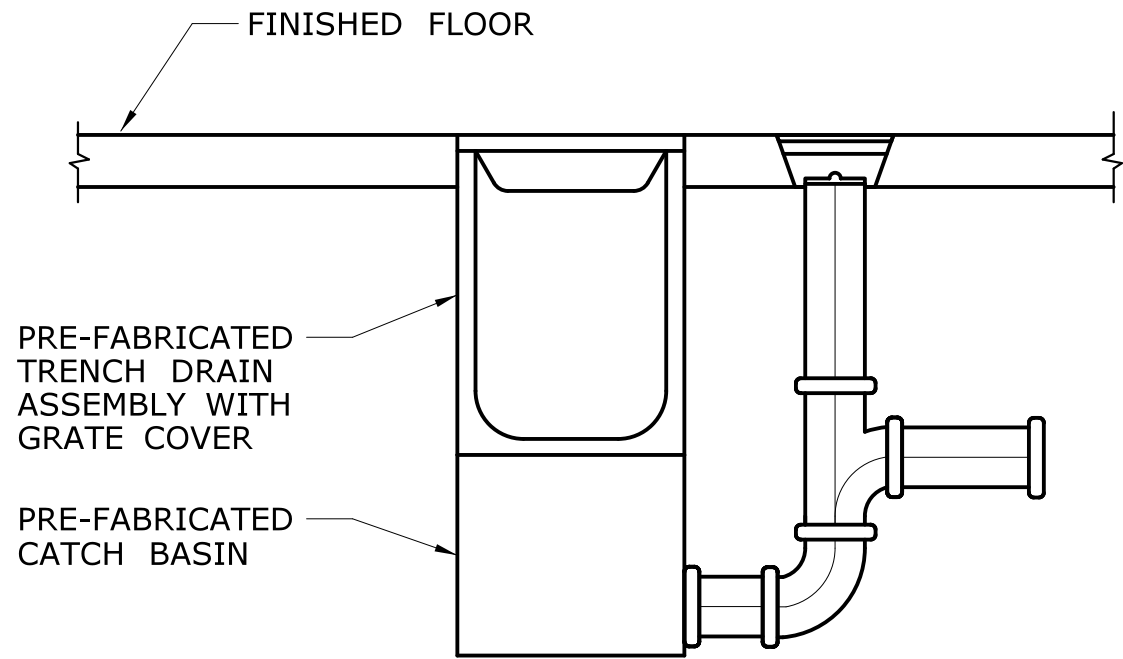
PROJECT TITLE:  
**OCCUM MAINTENANCE FACILITY**

TOWN:  
**OCCUM**  
DRAWING TITLE:  
**PLUMBING SUPPLY DETAILS**  
PROJECT NO.  
**103-247**  
DRAWING NO.  
**P-008**  
SHEET NO.  
**08.08**

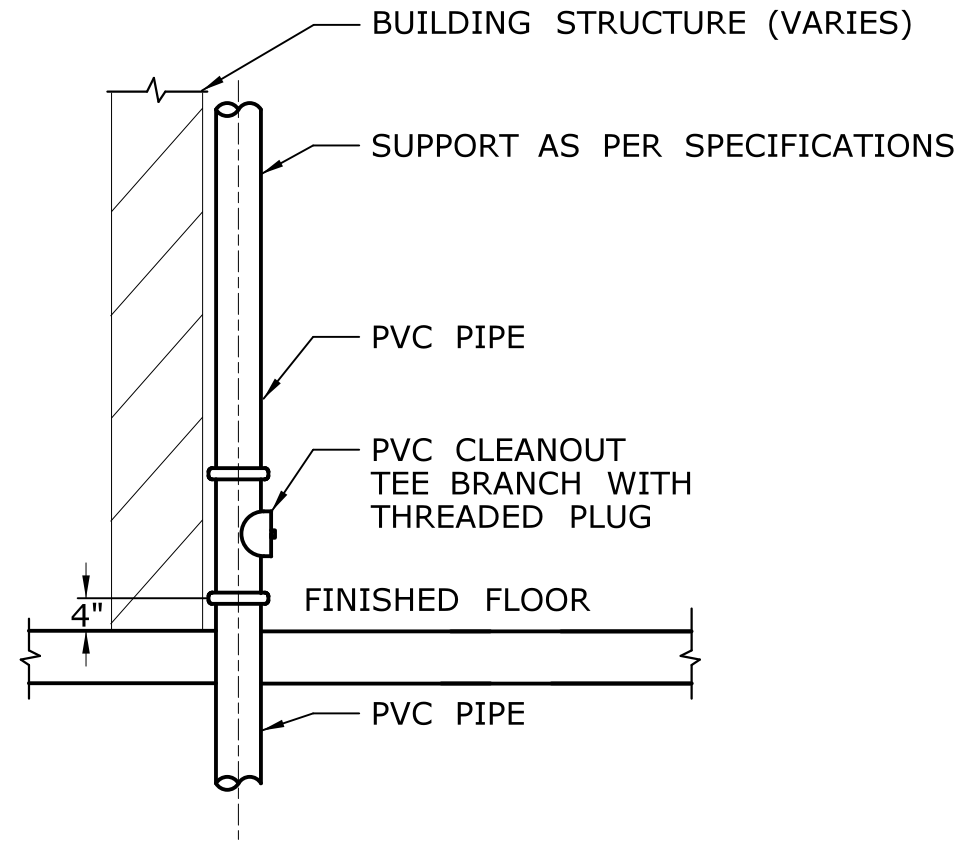




OFFICE AREA  
TRAP PRIMER PIPING DIAGRAM

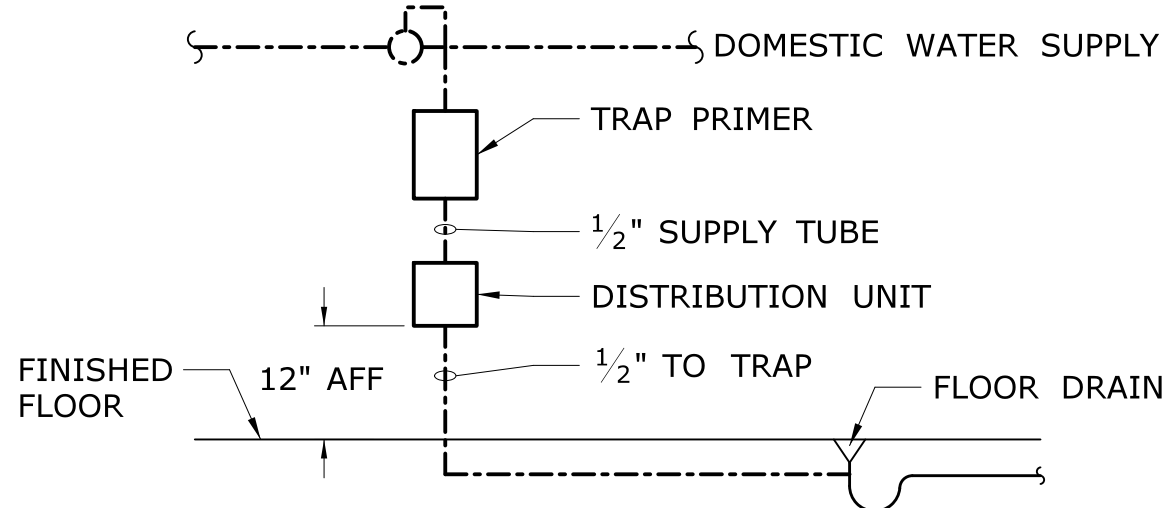


CHANNEL DRAIN CATCH BASIN  
WITH TRAP AND CLEANOUT DETAIL

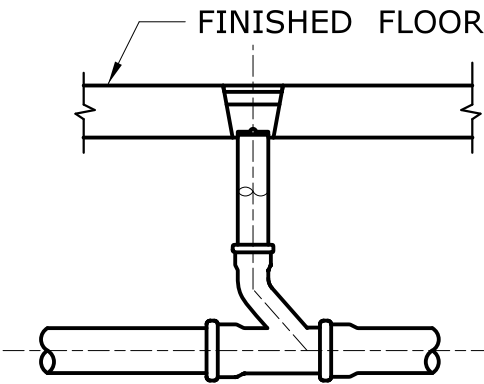


ROOF DRAINAGE  
DOWNSPOUT SHOE DETAIL

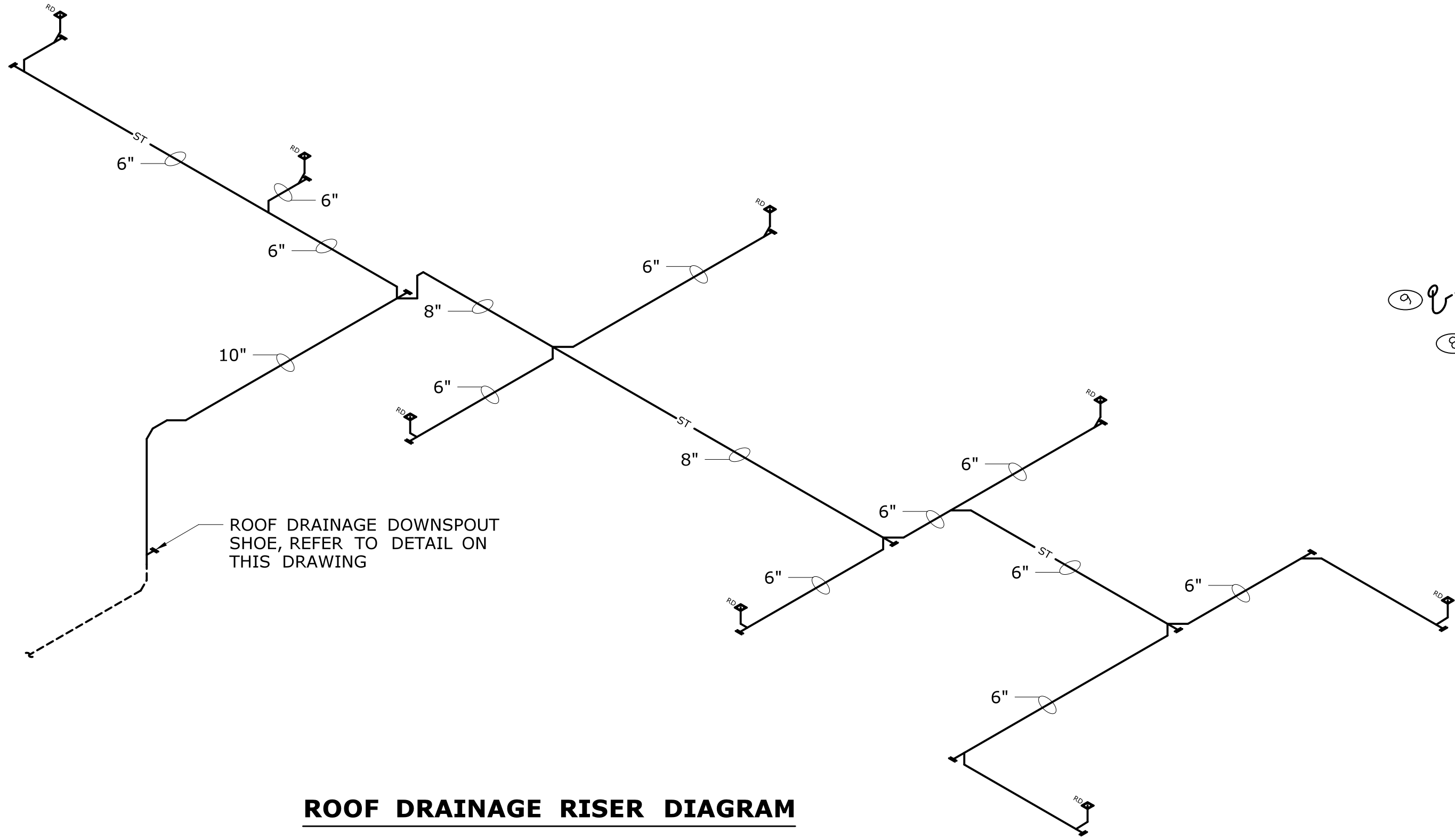
C  
P-007



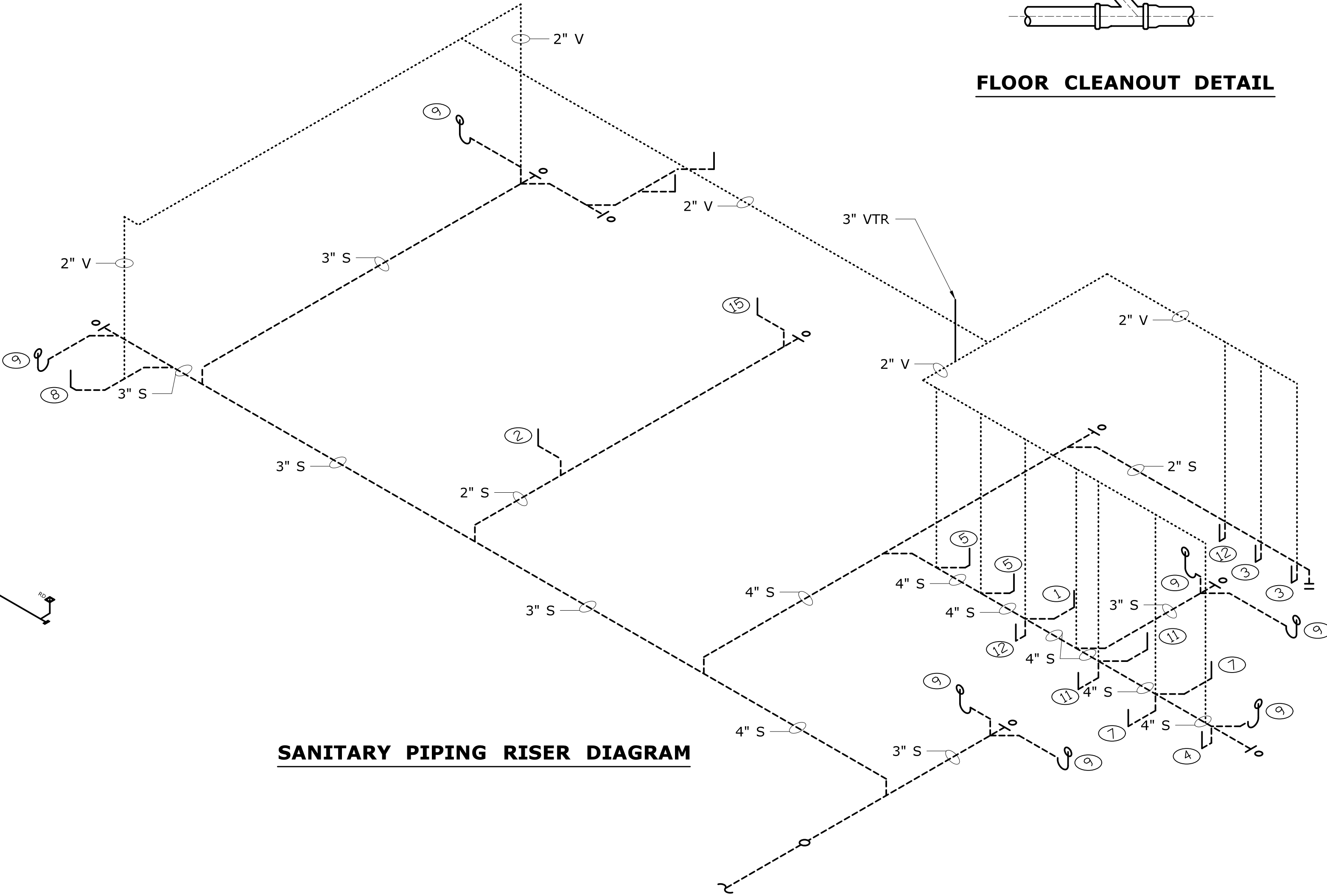
TRAP PRIMER CONNECTION DETAIL



FLOOR CLEANOUT DETAIL





ROOF DRAINAGE RISER DIAGRAM



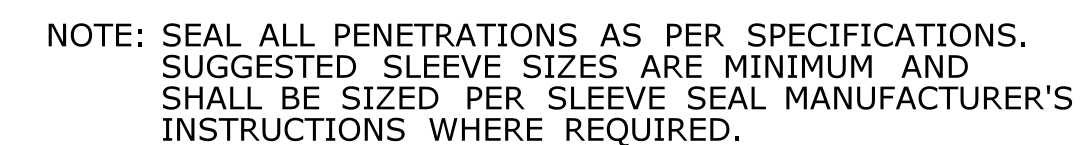
SANITARY PIPING RISER DIAGRAM

- NOTES:
- REFER TO DRAWING NO. P-002 FOR PLUMBING FIXTURE SCHEDULE.
  - REFER TO PLANS FOR FIXTURE LOCATIONS.
  - REFER TO PLANS FOR SIZE AND LOCATION OF CLEANOUTS.

				DESIGNER/DRAFTER: <b>JAB</b>		 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>	 <b>OFFICE OF ENGINEERING</b>	PROJECT TITLE: <b>OCCUM MAINTENANCE FACILITY</b>	TOWN: <b>OCCUM</b>	PROJECT NO. <b>103-247</b>					
				CHECKED BY: <b>JWW</b>											
				NOT TO SCALE											
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 6/10/2015		Filename: ...\\FD_MSH_MEC_0103_0247_P009.dgn									



## INTERIOR WALL SLEEVE DETAIL



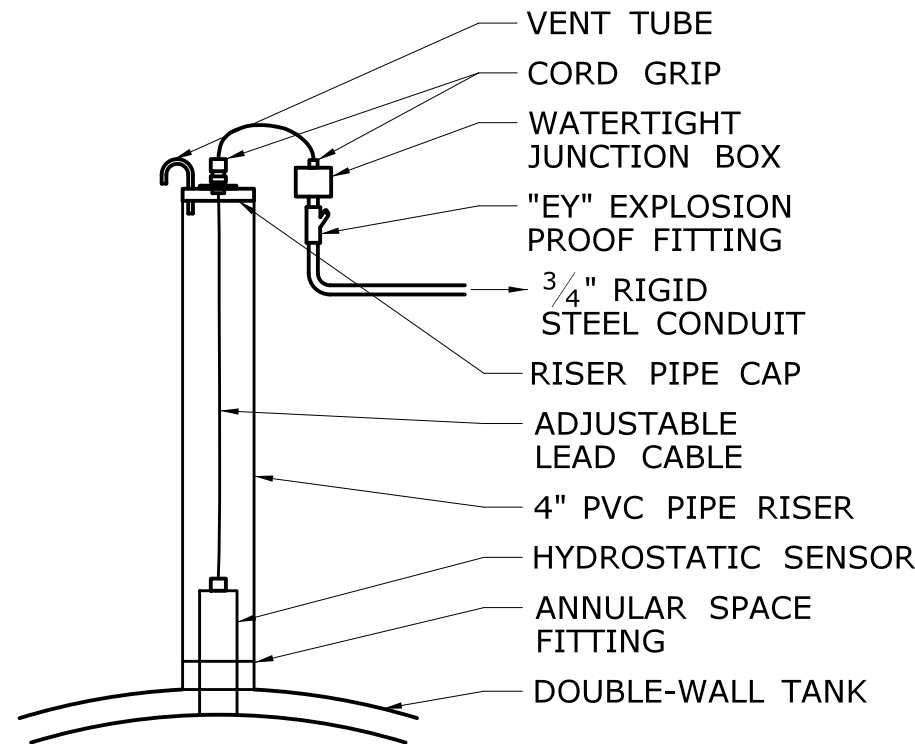
### EXTERIOR WALL SLEEVE DETAIL



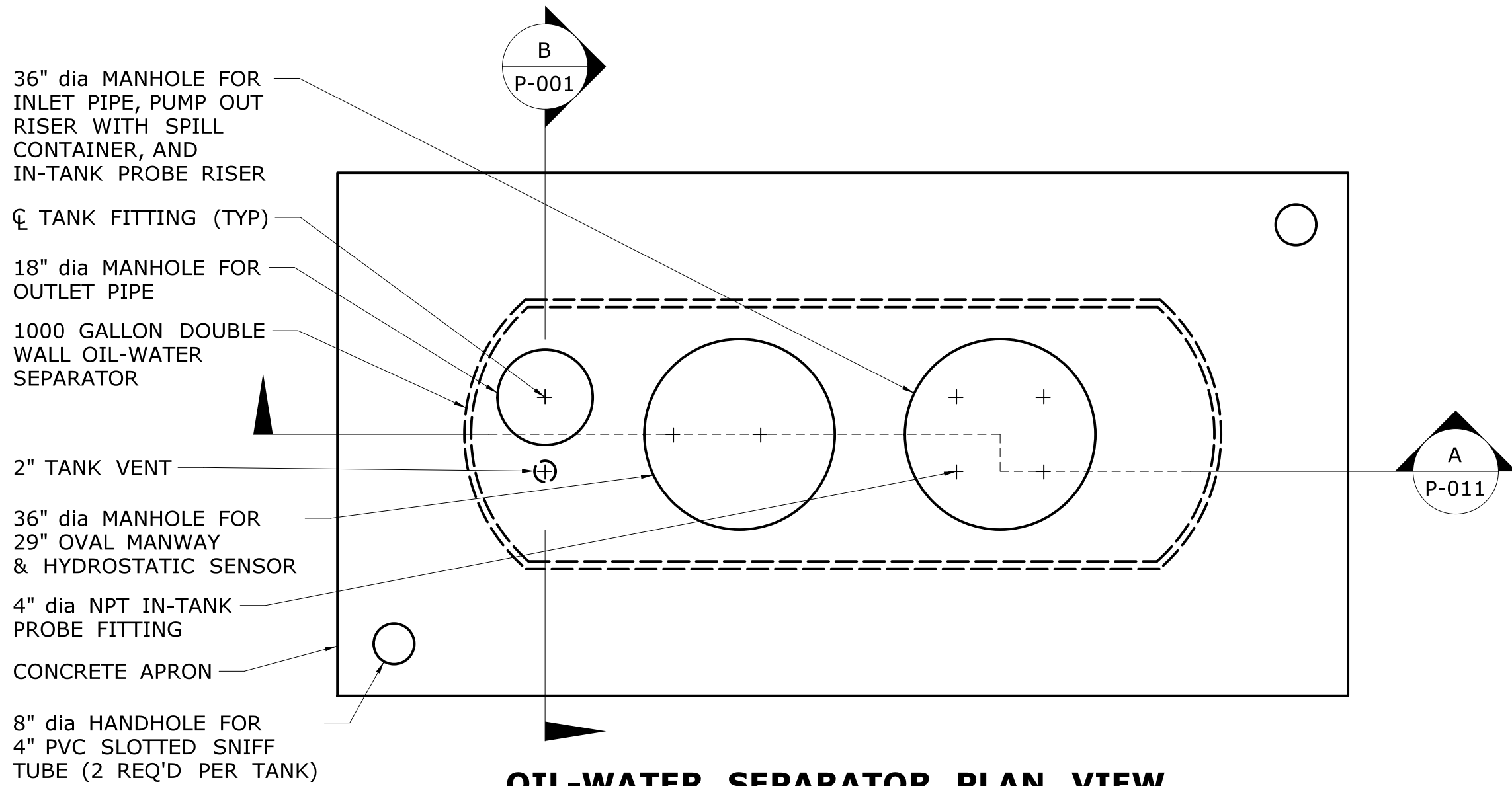
## INSULATED PIPE WITH VAPOR BARRIER

### ADJUSTABLE STEEL CLEVIS HANGER

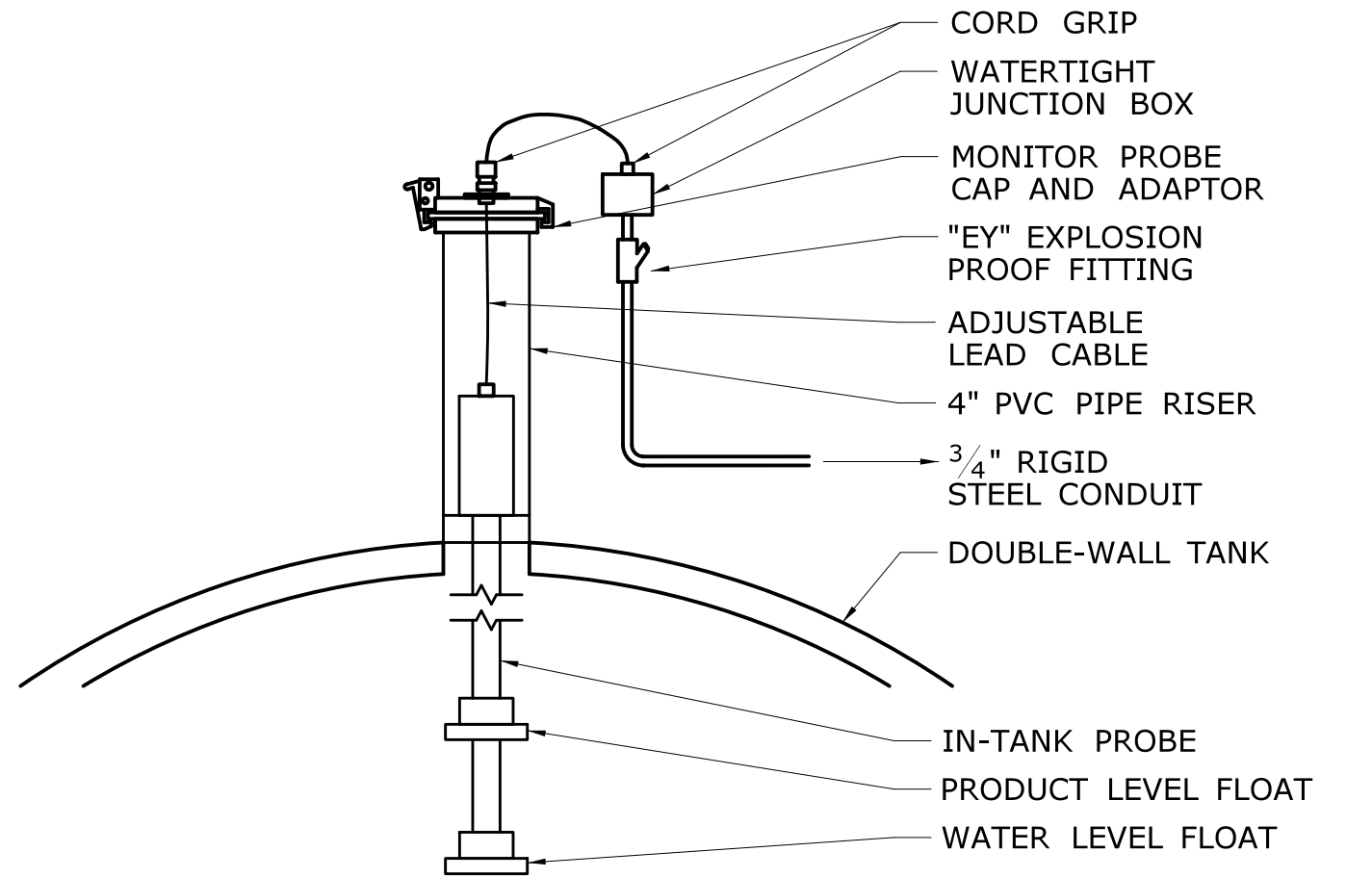
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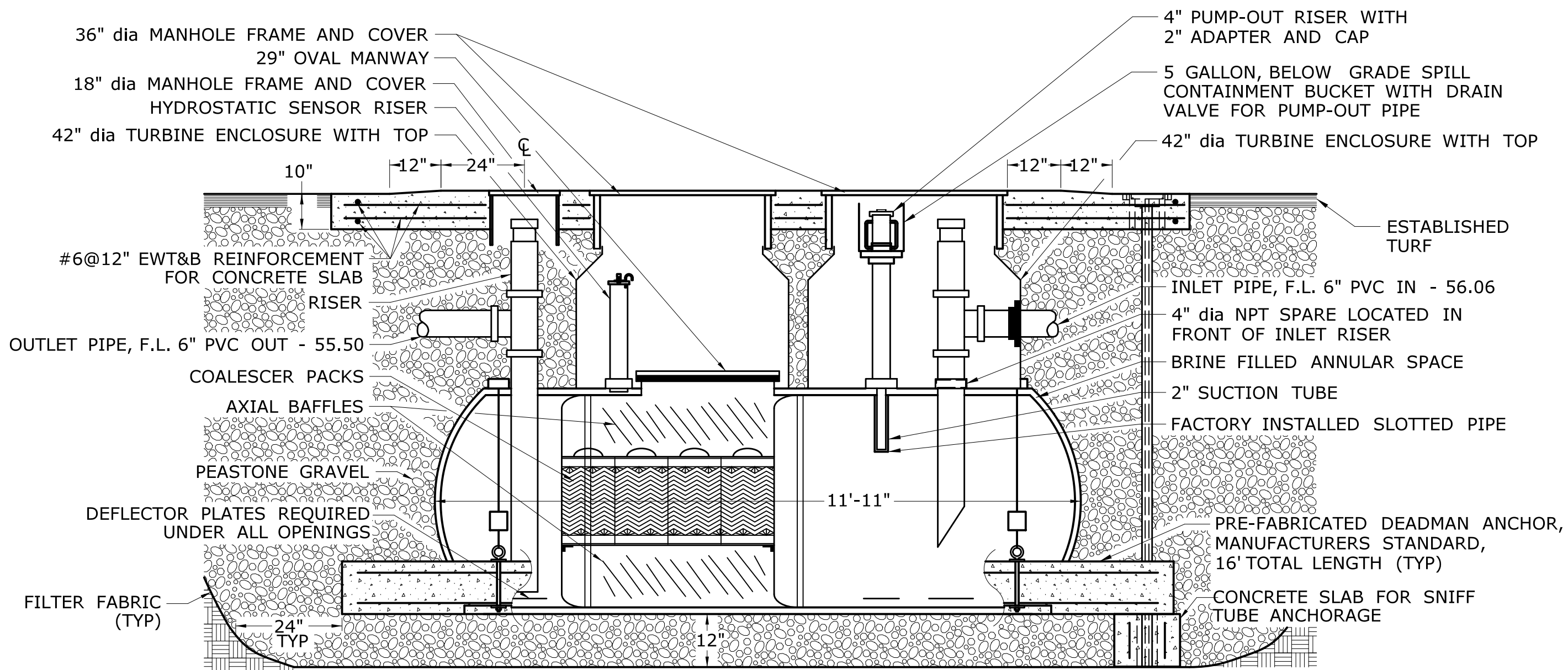
**HYDROSTATIC SENSOR DETAIL**  
NOT TO SCALE



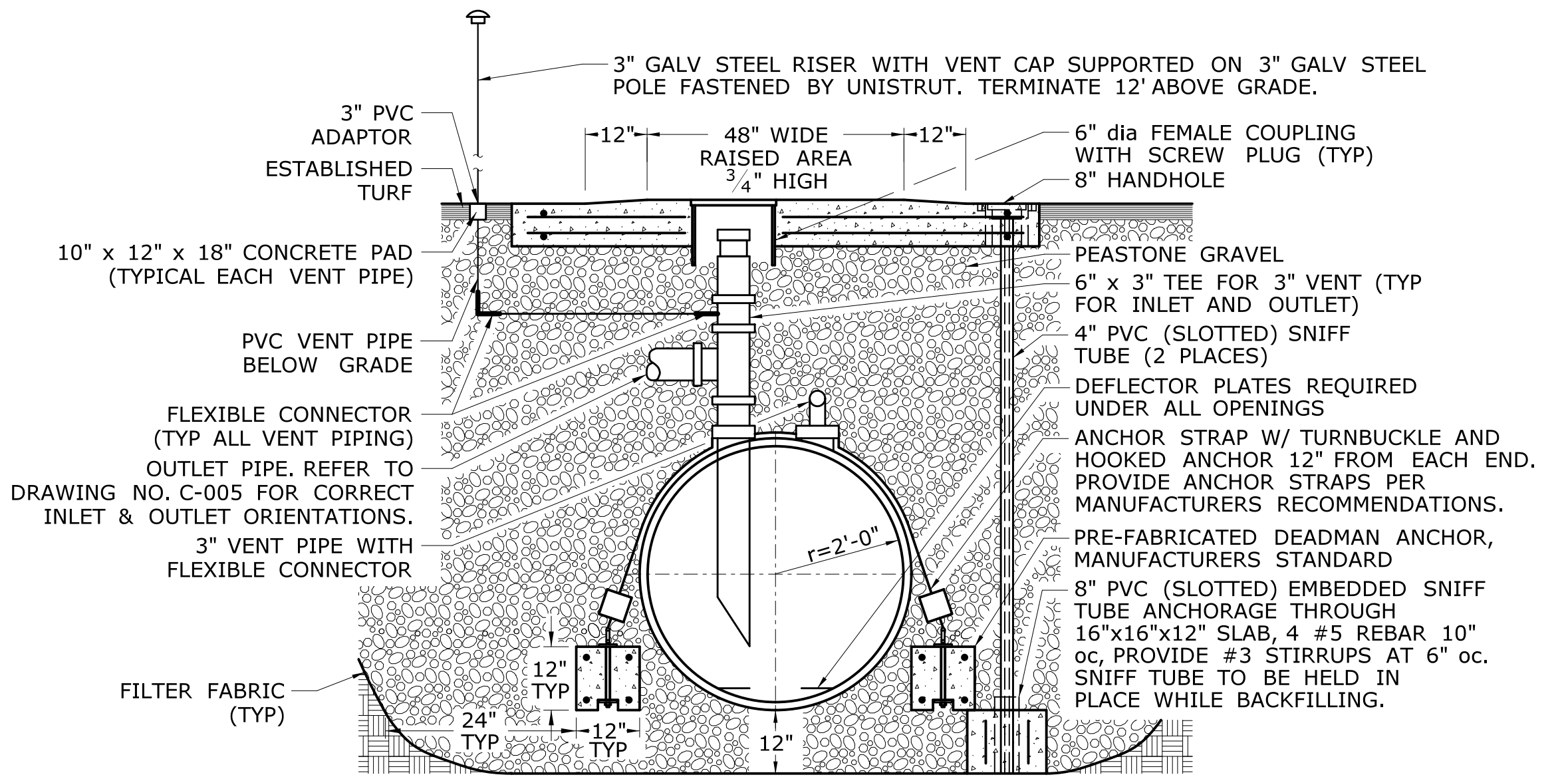
**OIL-WATER SEPARATOR PLAN VIEW**  
SCALE: 1/2" = 1'-0"



**IN-TANK PROBE DETAIL**  
NOT TO SCALE



**SECTION A**  
NOT TO SCALE **P-011**





**SECTION B**  
NOT TO SCALE **P-011**

**1000 GALLON DOUBLE WALL OIL-WATER SEPARATOR DETAIL**  
NOT TO SCALE

NOTES:

- THE DESIGNED TANK DIMENSIONS ARE BASED ON CONTAINMENT SOLUTIONS. ACTUAL PAD DIMENSIONS SHALL BE SIZED BASED ON THE APPROVED TANK DIMENSIONS.
- THE MANHOLE ARRANGEMENT IS BASED ON CONTAINMENT SOLUTIONS TANKS. ACTUAL MANHOLE ARRANGEMENT SHALL BE REDESIGNED AS NECESSARY BASED ON THE APPROVED TANK MANUFACTURER.
- ALL CONDUITS SHALL BE PROVIDED WITH EXPLOSIONPROOF FITTINGS AND SEALED AS REQUIRED IN ACCORDANCE WITH NFPA 70.
- ALLOW SLACK AT TANK IN ALL PIPING FOR SETTLING OF TANK.

				<div>THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.</div>	DESIGNER/DRAFTER: <b>JAB</b>	<div><b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b></div>	SIGNATURE/ BLOCK: <b>OFFICE OF ENGINEERING</b>	PROJECT TITLE:  <b>OCCUM MAINTENANCE FACILITY</b>	TOWN:  <b>OCCUM</b>	PROJECT NO. <b>103-247</b>			
					CHECKED BY: <b>JWW</b>		APPROVED BY: 			DRAWING NO. <b>P-011</b>			
					SCALE AS NOTED					SHEET NO. <b>08.11</b>			
REV.	DATE	REVISION DESCRIPTION	SHEET NO.		Plotted Date: 8/11/2015		DRAWING TITLE: <b>OIL-WATER SEPARATOR</b>						
					Filename: ...\\FD_MSH_MEC_0103_0247_P011.dgn								